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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,032	12/28/1999	XIAOLIN LU	101448	1769
26652	7590	01/16/2004	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			HA, YVONNE QUY M	
			ART UNIT	PAPER NUMBER
			2664	
			DATE MAILED: 01/16/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/474,032

Applicant(s)

LU ET AL.

Examiner

Yvonne Q. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-10 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-10, 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The amended claims 21 and 22 have been entered. Claims 3-10, 13-22 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-10, 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hou et al. (US Patent 6,324,184) in view of Chuah (US Patent 6,377,548) in further view of Fichou (US Patent 6,072,773).

Referring to claims 21, 22, 4, 6, 8, 14, 16, and 18, Hou discloses a method for regulating traffic in a network (col. 2, line 1-6, figure 1); network that includes media (col. 2, lines 64-67); and media access controllers (MACs) (col. 3, lines 63-65; col. 4, lines 49-60); each of the MACs controlling one or more media of the network (col. 5, lines 66-67, col. 6, lines 1-13, MAC controls different medium in terms of different channels, bandwidths and data rates), each of the MACs making unavailable an amount of media transmission capacity as reserve capacity (col. 5, lines 47-50, MAC controls the establishment and release of network bandwidth resources). Hou failed to disclose blocking end-users from gaining access to the network by asserting a traffic regulation signal in a channel of the network, adjusting the amount of reserve capacity based on a desired network performance. However, Fichou discloses a call admission control procedure protecting the network from potentially high bursty traffic and an access node reserves

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bandwidth for bursty traffic according to a connection specified QoS (col. 4, lines 34-36), the tolerance values (i.e. traffic regulation) declared at connection setup (i.e. control signal) in a plurality of access (col. 4, lines 44-48). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Hou MAC controller, Chuah traffic regulation and Fichou traffic parameters at connection setup because regulating traffic in a plurality of access/transit nodes require a congestion control procedures, which means a contention method would be necessary to avoid collisions or idle slots. Contention method on different slots/channels occurs at the beginning of the call set-up where conflict resolution and granting access are determined. Granting access to the "winning" remote host means the criteria has met (i.e. priority class, QoS, or available bandwidth at the time of contention).

Referring to claims 3 and 13, Hou discloses all aspects of the claimed invention but failed to teach priority or privilege of end user. However, Chuah discloses the traffic regulation signal blocks all end-users or end-users of a specific class, the class being defined by one or more of priority, QoS, or privilege (col. 22, lines 19-27, access control based on priority class). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Hou MAC controller, Chuah traffic regulation and Fichou traffic parameters because regulating traffic in a plurality of access/transit nodes require a congestion control procedure, granting access/bandwidth to a particular end user would require class priority or service type priority in order to avoid a bursty network or collisions.

Referring to claims 5 and 15, Hou discloses all aspects of the claimed invention but failed to teach the in-band/out-of-band signaling. However, Chuah discloses all aspects of the claimed invention and further teaches the protocol uses one of in-band signals, out-of-band signals or

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independent channel signals to control access to the network (col. 8, lines 1-10, foreign mobility and inter working function, i.e. out-of-band signaling; home switching and home server, i.e. performs in-band signaling or interworking with foreign switch, i.e. out-of-band signaling). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Hou MAC controller, Chuah traffic regulation and Fichou traffic parameters because the MAC controller could be used as a central hub for interfacing to other types of users (i.e. different data rate or channels as in-band signaling) as presented by Hou. With the teaching of Chuah, an interworking function would allow a user to communicate outside of its network. This combination of network interaction would give the network more flexibility to communicate to any end user, regardless whether the user in inside or outside of its home network.

Referring to claims 7 and 17, Hou discloses all aspects of the claimed invention and further teaches the monitoring is performed by media access controllers (MACS) for each media of the network that requires access control (col. 3, lines 63-65; col. 4, lines 49-60), the media access controllers controlling a local reserve capacity of each respective media based on system parameters (col. 5, lines 66-67, col. 6, lines 1-13, MAC controls different medium in terms of different channels, bandwidths and data rates) and monitoring data generated by each of the MACs (col. 5, lines 22-25, link management function) .

Referring to claims 9 and 19, Hou discloses all aspects of the claimed invention and further teaches receiving in the central traffic regulation controller the monitoring data generated by the MACs (col. 6, lines 34-35, monitoring function; col. 8, lines 57-65, controller maintaining the traffic counter per user over control intervals); and issuing traffic regulation commands from

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the central traffic regulation controller to the MACs to regulate traffic in each of the media to achieve network performance requirements (col. 7, lines 28-30; 36-47 traffic parameters, i.e. regulation; col. 8, lines 57-65, controller maintaining the traffic counter per user over control intervals) .

Referring to claims 10 and 20, Hou discloses all aspects of the claimed invention and further teaches each of the MACS is one of a dedicated media access controller or an end-user that includes a media access function (col. 6, lines 32-35, contention/non-contention access on MAC).

Response to Arguments

3. Applicant's arguments filed on 10/23/03 have been fully considered but they are not persuasive. Referring to argument on line 16, page 8, the examiner disagrees that the prior art does not teach a network having connections with associated access protocols. Hou discloses the central controller allocates bandwidth to manage communications between the subscriber units and the central controller, where the subscriber unit is located at HFC physical layer and MAC layer (col. 3, lines 25-35). The MAC layer is part of the access protocol. Referring to argument on line 3, page 9, the examiner disagrees with the applicant that Fichou does not disclose asserting a traffic regulation signal. Fichou disclose the tolerance values (i.e. traffic regulation) declared at connection setup (i.e. control signal) in a plurality of access (col. 4, lines 44-48), which indicates regulation is considered during the setup where signals are exchanged with parameters during connection setup. Referring to argument on line 3, page 10, the examiner disagrees with the applicant that Fichou does not disclose asserting a traffic regulation signal to be consistent with the protocol. Fichou discloses congestion control of a call setup will ensure

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the user stays within its agreed-upon traffic characteristics, which indicates the call setup (access protocol) and congestion control are consistent with the conformance.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne Q. Ha whose telephone number is 703-305-8392. The examiner can normally be reached on Monday-Friday 7a.m.-4p.m. Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ajit Patel can be reached on 703-308-5347. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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YQH


Ajit Patel
Primary Examiner